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**To:** [Eric Blischke/R10/USEPA/US@EPA](#); [Joe Goulet/R10/USEPA/US@EPA](#); [Burt Shephard/R10/USEPA/US@EPA](#); [rgensemer@parametrix.com](#); [Dana Davoli/R10/USEPA/US@EPA](#); [jay.field@noaa.gov](#); [Benjamin Shorr](#)  
**Cc:** [Chip Humphrey/R10/USEPA/US@EPA](#)  
**Subject:** Task 3 Data Analysis Planning  
**Date:** 12/01/2006 10:13 AM

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Part of Task 3 is to evaluate the clam and Lumbriculus data. The following data is available for analysis:

- 1). Field collected clam data (Corbicula) from 33 locations between RM 2 and 10 (sampling stations LW2-BT001 to LW2-BT033. Enough biomass (35 grams) was collected at 24 of the stations to allow for the analysis of the full suite of analytes. At nine stations a limited suite was analyzed for (at BT011, BT015, BT016, BT018, BT023, BT026, BT029, BT032, and BT033).
- 2). Surface sediment (top 10 cm) samples representing a co-located composite of the area from which clams were collected (same 33 locations).
- 3). Lumbriculus 28-day laboratory bioaccumulation test with the sediment collected in (2) for 35 sediment samples (including replicate samples at BT006 and BT027).
- 4). Corbicula 28-day laboratory bioaccumulation test data with the sediment collected in (2) (including a replicate samples at BT006 and BT027).

Using this data the following data analysis is suggested:

- 1). Display of the data spatially to show trends in the tissue data throughout the harbor by data type (field Corbicula, lab Corbicula and lab Lumbriculus). This would include all major analytes in order to determine how each are concentrating in benthic tissue. Comparisons between the different tissue types can highlight field effects that are not apparent in the steady state laboratory bioaccumulation tests (see analysis already performed for total PCBs).
- 2). Calculate and compare BSAFs for each type of tissue data (field Corbicula, lab Corbicula and lab Lumbriculus) and associated sediment data. Highlight trends in accumulation of different analytes throughout study area. Also highlight differences in the different types of tissue data. Keep in mind the laboratory bioaccumulation data did not reach equilibrium for chemicals with higher Kow values. As Kow increases the time to steady state also increases. We can explore the use of correction factors for the laboratory data relative to Kow based on EPA and the US Army Corps work in this area if necessary.
- 3). Highlight areas of concern for different analytes (e.g. localized effects). This can be done by presenting the magnitude and spatially extent of the data to show elevated areas of concern. The data can also be compared tissue residue values appropriate for invertebrates (for direct effects).
- 4). This dataset represents the only true SURFACE sediment data we have as a part of the LWG collection efforts. All other sediment collection was collected down to 30 cm, which is likely below the biologically active zone. This has raised questions as to the representativeness of the data for correlating fish tissue concentrations to sediment concentrations (e.g. through BSAFs and food web modeling). Sediment data from this effort and associated calculated BSAFs should be compared to the Round 1 tissue / sediment data and the Round 2 sediment data collected as a part of nature and extent and bioassay testing to see if there are significant difference in results.
- 5). Note: this effort should also include the analysis of mussel tissue collected at the same time as the Corbicula from the field. Mussels were collected from 19 locations. However, the analysis of this tissue is delayed at this time. Does anyone know when this will be done?

-Jennifer

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
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Sent: Tuesday, November 21, 2006 10:42 AM  
To: Goulet.Joe@epamail.epa.gov; Shephard.Burt@epamail.epa.gov;  
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Cc: Yamamoto.Deb@epamail.epa.gov; Humphrey.Chip@epamail.epa.gov;  
Cox.Michael@epamail.epa.gov  
Subject: Retreat Planning

You are receiving this email because you have been identified as a key support person for the pre-Round 2 Report evaluation and Retreat Planning.

Per my earlier email, we identified seven Pre-Round 2 Report Evaluation tasks. Chip and I have developed the following plan for getting us

through this. Here are the responsibilities as we see them. The specific elements of each task were described in my earlier email.

- 1) Evaluate fish tissue with respect to tissue and dietary based TRVs. This effort will focus on evaluating risks to fish based on a TRV screen and evaluation of spatial relationships. Joe Goulet will take the lead on the TRV evaluation. PMX with support from Ben Shore will lead up the spatial evaluations. This will require a low-medium level of effort for tissue residue TRVs and medium to high level of effort for dietary TRVs.
- 2) Evaluate fish tissue with respect to consumers of fish (human and ecological). This effort will focus on screening fish tissue concentrations against tissue PRGs and evaluating the spatial distribution of risk. Burt Shephard will take the lead on the development of fish tissue RBCs protective of wildlife receptors. Dana Davoli will take the lead on the development of fish tissue RBCs protective of human health. PMX with support from Ben Shore will lead up the spatial evaluations. This is expected to be a low to medium level of effort.
- 3) Evaluate bioaccumulative relationships to develop sediment and water concentrations protective of aquatic receptors or fish consumers. Burt Shephard will take the lead on the bioaccumulative evaluations for ecological risk. Dana Davoli will take the lead on the bioaccumulative evaluations for Human Health. Jennifer Peterson and Ben Shore will support this effort - Jennifer on the evaluation of the Clam and Lumbriculus data; Ben on the spatial evaluations. This is a medium to high level of effort.
- 4) Finalize preliminary WOE approach for the ERA. This effort will focus on finishing the LOE/WOE framework. Bob Gensemer will take the lead on this. Jennifer Peterson will provide support. This is a low to medium level of effort.
- 5) Evaluate surface water and transition zone water. This effort will focus on screening water data against PRGs and evaluating the spatial distribution of water data. Dana Davoli will take the lead on this. Bob Gensemer and Ben Shore will provide data base and spatial evaluation support. This is a low level of effort.
- 6) Evaluate bioassays and predictive relationships. This effort will focus on evaluating each LOE for the benthic community through application of the WOE framework. Bob Gensemer will take the lead on this. Jay Field and Jennifer Peterson will provide support for the application of predictive models and the WOE approach for the benthic community. This is a medium level of effort.
- 7) Evaluate direct contact with sediment. This effort will focus on screening sediment data against PRGs and evaluating the spatial distribution of sediment data. Dana Davoli will take the lead on this. Bob Gensemer and Ben Shore will provide data base and spatial evaluation support. This is a low level of effort.

My plan is to discuss and prioritize the sub-tasks under each task during tomorrow's TCT. By December 1, 2006, we need a list of specific evaluation tasks that we will perform. I will be sending out a TCT agenda later today.

Let me know if you have any questions.

Thanks, Eric